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(54) LASER DRILLING METHOD AND DEVICE

(57) Abstract:

PURPOSE: To provide a laser drilling device and method by which drilling work with a high accuracy is made possible by eliminating variation of hole diameter at the time of starting of working in the case drilling of plural microscopic holes are continuously executed.

CONSTITUTION: During a period of time from a time t_1 to a time t_2 after starting working while the output energy of laser beam is stabilized to a level that is corresponded to an apparent frequency, input voltage to a flash lamp 1a or pulse width is gradually increased in accordance with one pulse of laser beam from the

time t_1 to the time t_2 . This is controlled with controlling means 14, 15, 16, 17, 18. In this way, drop of the output energy of laser beam due to thermal lens effect is eliminated, the output energy of irradiating laser beam is uniformly and constantly held, the diameter of worked hole is fixed and drilling work with high accuracy is made possible.

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